

**OMEGA CHEMICAL SITE PRP ORGANIZED GROUP**

1322 Scott Street  
Suite 104  
San Diego, CA 92106  
(619)-546-8377  
(619)-546-9980  
e-mail: [edm@demaximis.com](mailto:edm@demaximis.com)

**VIA US MAIL**

October 15, 2009

Ms. Kathleen Salyer  
Branch Chief  
U.S. Environmental Protection Agency, Region 9  
75 Hawthorn Street, M/C SFD-1  
San Francisco, CA 94104

Subject: Omega Chemical Site, Operable Unit 2,  
Draft RI Report/Proposed FS Alternatives Comment Letter

Dear Ms. Salyer:

While OPOG has found the quarterly technical meetings with EPA to discuss the draft OU-2 RI Report and proposed FS alternatives to be very useful, we want to emphasize that there are several critical issues that still have not been adequately addressed. The following provides a written overview of these critical issues.

**Draft OU-2 RI Report**

The draft OU-2 RI Report concludes that the entire geographic extent of a 4.5 mile plume of contamination down-gradient from the Omega site is attributable to the releases from the Omega property. We disagree with this conclusion because the evidence in the RI itself belies it and for other technical reasons. Specifically, our major concerns are as follows:

1. The RI report assumes that contaminants migrated vertically downward 70 feet from the Omega site immediately when the site opened in 1976. In view of the subsurface stratigraphy, it would probably take several years or more to migrate to that depth.
2. The RI report assumes that there was no retardation or decay of contaminants from the Omega site during the horizontal flow of groundwater. Data within the RI report itself shows such retardation and decay is likely occurring.

3. Finally, the RI report assumes that since Freons "persist" throughout the plume, all of the plume must be tied to release of Freons from Omega. EPA itself is still continuing to look for additional Freon sources. The conclusions in the RI, therefore, are at best premature, and are likely inaccurate.

### **Proposed FS Alternatives**

The proposed FS alternatives inappropriately evaluate only *one basic alternative*: pump and treat. The FS alternatives do not adequately address source containment and removal alternatives that address contamination closer to source areas. They could constitute, more technically and cost effective approaches to limiting the risks of the plume.

This failure to evaluate different alternatives for feasibility is, in our experience, unprecedented. OPOG strongly believes that the FS fails to consider feasible, appropriate remedy options which, considering the criteria of effectiveness, cost, environmental impact, energy use, flexibility, ease of implementation, and local impacts on the community, are likely to be superior to the one option EPA evaluates.

We have attached a more detailed explanation of our concerns (Attachment I), but want to clearly focus our concerns in this summary. OPOG forwards these comments because of its concerns that the failure to address each of these critical issues will make the likelihood of a PRP-led remedial action in OU-2 much less likely.

Should you have any questions, regarding the above, please contact me.

Sincerely,  
Omega Chemical Site PRP Organized Group



Edward Modiano  
Project Coordinator

cc: Keith Takata, EPA  
Steve Berninger, EPA  
Fred Schauffler, EPA  
Lynda Deschambault, EPA  
Gene Lucero, OPOG Member  
Dave Chamberlin, CDM-consultant to OPOG

## **ATTACHMENT I**

### **DETAILED SUMMARY OF OPOG'S CONCERNS WITH THE DRAFT OU-2 RI REPORT CONCLUSIONS AND PROPOSED FS ALTERNATIVES**

The following document summarizes several very serious concerns that OPOG has with the EPA OU-2 Draft Remedial Investigation (RI) report completed in March of this year, and the current status of remedial alternatives proposed by EPA for the pending Feasibility Study (FS). It appears to us that EPA has not accurately considered key technical model input parameters in reaching its conclusion that the Omega-derived plume in OU2 extends approximately 4.5 miles down-gradient from the Omega site. For the reasons below, we believe that EPA's view of the extent of the plume attributable to Omega is inaccurate. We are hopeful that OPOG and EPA can initiate immediate discussions to correct what we see as serious technical concerns with the RI Report.

#### **RI Report**

In the RI report, EPA has defined a groundwater plume in OU2 that extends approximately 4.5 miles down-gradient from the Omega site. Although Sections 5.4 and 5.5 of the RI document numerous sources of chlorinated solvent contamination that contributes to the OU2 plume, the RI inexplicably concludes that the full geographic extent of the Freon plume is attributable solely to releases from the Omega property. Based on our previous discussions with EPA, OPOG understands that EPA's conclusion is based on two factors – first, that EPA has identified no significant sources of Freon other than Omega and Freon extends the length of the plume, second, that the FEFLOW model used by EPA's contractor supports such a contaminant transport distance.

With respect to the Freon issue, OPOG believes that EPA is continuing to research potential additional Freon sources to the plume. It is decidedly premature for the RI report to include such a significant, and potentially erroneous, conclusion before this investigation is completed. Indeed, OPOG is evaluating potential sources of Freon down-gradient from the Omega Site, which are likely contributing to the plume.

With respect to the FEFLOW model, OPOG understands that the FEFLOW model assumes that (a) releases on the ground surface at the Omega property in 1976 instantaneously reached groundwater 70 feet or more below the ground surface, and (b) no retardation or decay of contaminants occur as they migrate in a down-gradient direction. Both of these assumptions are scientifically invalid. In terms of release times, there is no evidence that OPOG is aware of that indicates that releases occurred as far back as 1976. More importantly, the RI provides no technical justification for how any surficial releases could instantaneously migrate vertically through a 70-foot vadose zone. At a bare minimum, we would expect the RI to include vadose zone transport estimates to support EPA's conclusion.

EPA also assumed there was no retardation or decay of contaminants as they migrate down-gradient. This is contrary to well known and peer reviewed studies which show substantial decay in chlorinated VOCs as they migrate through groundwater. In addition, the assumption that these processes do not occur is directly contradicted by data presented elsewhere in the RI. Thus, OPOG requests that transport modeling be re-performed using representative and appropriate input parameters, based on sound science. We further suggest that a more widely used model (e.g. MODFLOW) be used, so that members of the public can evaluate the results more readily.

## **Feasibility Study**

OPOG appreciates the FS briefings that EPA has provided during the June 17th and August 31st quarterly technical meetings. Based on our understanding of the current status of the FS, we are very concerned about two issues in the FS. First, the approach chosen by EPA to have all "active" alternatives presumptively assume that the remedy will be groundwater extraction and treatment, with the only variability being the end use of the water, precludes a reasonable analysis of the range of potentially appropriate remedial actions and violates section 121 of CERCLA. OPOG understands that the primary objective of the remedy, as stated by EPA, is containment. There are clearly many different means of achieving containment and the FS fails to provide any evaluation of such options. Second, EPA has acknowledged that many continuing sources of contamination may be contributing to the current mass in groundwater, yet the FS includes no alternative to address these continuing sources. OPOG strongly requests that EPA include alternatives that focus on addressing the sources of contamination. Without this, EPA is proposing remedy options that are unnecessarily costly and do not directly address the real problem. In the June 17th and August 31st meetings, OPOG proposed one such potential alternative – "hot spot" remediation in multiple contaminant source areas, coupled to migration control at the down-gradient extent of the plume. This approach would fully meet EPA's stated containment objectives, and do so in a far more cost-effective and expeditious manner than any of the alternatives currently under discussion. Furthermore, this approach would allow application of in-situ technologies at source areas, technologies that are fully proven to be more cost effective at destruction of contaminant mass than groundwater extraction and treatment.